

## 6. Transportation Issues

Through consultation with the public and agency and private stakeholders, review of previous studies in the area, and technical analyses, key transportation issues have been identified in the Northwest Valley. Many are longstanding concerns and continue to surface in studies performed at the regional and local levels. Others are less visible, but just as significant as they relate to the long-term viability of the overall system. This section addresses the critical regional transportation issues in the Northwest Valley, combining local and regional input to create a broad understanding of what will be needed to maintain an acceptable level of service in the area.

### 6.1 Highest Priority Issues

Among the major issue categories are those listed below. Most are well defined and generally rise to the top of transportation discussions within the local communities. This is a generalized list of issue categories. The results of the public consultation phase that follow address more of the individual perceptions among the affected communities.

#### 6.1.1 Key Issues in Northwest Valley

##### Highway

- Complete/maintain arterial grid
- River crossings
- East-west capacity

- System of Enhanced Arterials
- Grand Avenue
- Existing and New Freeway capacity/access
- Loop 303 (alignment, northern terminus, character and impacts)
- Wickenburg Bypass

##### Goods Movement

- Truck traffic (routes and impacts)
- Rail (BNSF)

##### Policy

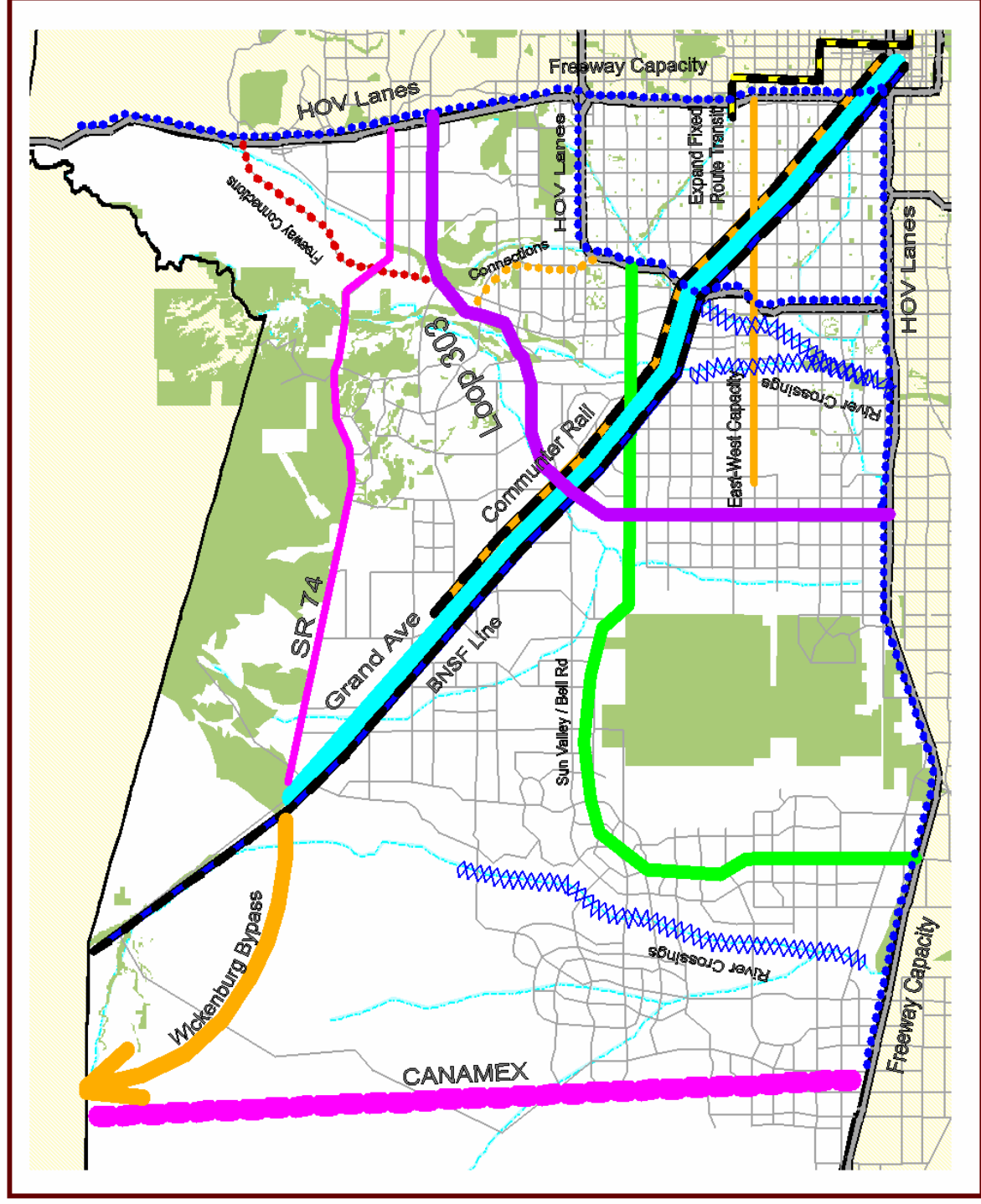
- Right-of-way protection
- Eliminating scalloped streets
- Maintenance of freeways

##### Transit / Alternative Modes

- Regional funding of transit service
- HOV lanes on 101, I-17 and I-10
- Commuter rail/high capacity transit
- Expansion of fixed route, dial-a-ride, etc.

Consistent with the strong automobile orientation of growth in the Valley as a whole, the Northwest Valley has a focus on improving key roadways. The vast majority of projects that are considered critical pertain to better management of traffic on streets and highways. Transit represents a smaller, but rapidly-growing interest in the more mature portions of the area. Figure 21 shows the location of critical issues.

Figure 21: Critical Issues Map



# Northwest Area Transportation Study

## CRITICAL ISSUES

### 6.1.2 Consultation Findings of Key Issues

Based on discussions with the local communities and interests, the following issues were the highest priority. It is clear that each community has its own priorities as they relate to their local area and the Northwest Valley subregion. For purposes of presentation, it is necessary to focus first on those items that are of concern to the greatest number of communities and interests. Other issues (and their solutions) will be used to refine the list of proposed solutions, as appropriate.

The high priority list is shown below. It covers a wide variety of items in all modal areas. They are shown in alphabetical order without specific indication of ranking<sup>5</sup>:

- Elderly Mobility
- Funding Transit Expansion
- Luke Air Force Base (AFB)
- Existing and New Freeway Capacity/Access
- Freeway Funding
- Upgrade Railroad Crossings
- Right-of-way Preservation in Transportation Corridors
- Signal Coordination/Intelligent Transportation Systems (ITS)

<sup>5</sup> A broad issue will garner stronger support because it touches more directly on most agencies and their constituents (e.g., elderly mobility). Those that impact one area more than another may not show the same regional support (e.g., golf carts.) With this understanding, the ranking is shown only as a relative measure of importance for items that meet a specific interest or focus on a specific concern of the community representatives interviewed in the Consultation and Coordination Tasks or which rise to a level of concern based on empirical information about system performance.

### 6.1.3 Modal Breakdown

Because this is a disparate collection of issues, a more reasonable grouping and ranking of categories would be based on modes. With this in mind, the following lists have been created to show which items are most important within each mode. Many issues relate to more than one category and have been reflected in all that apply.

#### Arterial Highway Issues

The most significant arterial highway issues, as identified by the consultation process, related to improving the arterial system and ensuring it can be expanded in the future.

The main issues are listed below:

- Common Access Control Policy
- Arterial Grid Completion
- Improvement to Freeway Interchanges
- Railroad Crossing Upgrades
- Right-of-Way Preservation in Transportation Corridors
- River Crossings (new and expanded)
- Signal Coordination/ITS

#### Freeway Issues

With the rapid growth of the Northwest Valley, freeway capacity is a growing concern.

Regarding the regional freeway system, the main issues are:

- HOV Lanes on Freeways
- Freeway Interchange Improvements
- Freeway Capacity Improvements
- Funding for Freeway Improvements
- Right-of-Way Preservation

#### Transit Issues

In addition to the longstanding issue of transit funding, the main transit issues are related to and reliant on, at least in part, the roadway priorities of the present.

Preserving options for the future when the need for transit becomes more imperative is part of a long-term view toward transit in much of the area. Transit issues are:

- Elderly Mobility
- Funding Transit Expansion
- Funding Freeway HOV Improvements
- RR Crossing Upgrades
- Right-of-Way Preservation for High Capacity Transit
- Non-Motorized Access

#### Bicycle/Pedestrian/Alternative Modes Issues

The following list is an indication of which items are most important within this category, but it must be noted that these do not rise to a level of priority comparable to the preceding modes. They are listed here because they represent a component of the overall transportation plan:

- Elderly Mobility
- Policies for Pedestrians
- Non-Motorized access

#### Policy Issues

These items require a practice standard or policy direction by the cities or regional agencies to establish a method to maintain consistency in the handling of key issues. In general, these will work best if there is agreement at a subregional or regional level to support a common understanding of how such policies or practices will be applied:

- Common Access Control Policy
- Elderly Mobility
- Luke AFB
- Funding Freeway Improvements
- Pedestrian Facility Improvements
- Right-of-Way Preservation

## 6.2 Other Issues

Though not specifically identified in the issues above, there is a common thread that links most of the highest priority concerns in the

Northwest Valley. All agencies and interests, despite a consistently strong and positive view of the future, see their most urgent transportation issues as solving current problems. Few of the issues above focus on a long-term transportation solution that will accommodate the level of growth anticipated in the Northwest Valley.

The high showing by “elderly mobility” and “preserving rights-of-way” are two important exceptions to the focus on short-term solutions. They reflect the aging of the population (and the elderly population already in the area) and the need to mitigate what has been a limitation to past programs, namely, the unavailability of rights-of-way to provide for ever-expanding capacity needs.

## 6.3 Report Structure

For simplicity, the discussion of issues has been divided by mode with references to other modes as appropriate to address key intermodal issues. This is consistent with how project funding is allocated in the MAG region. However, the intent is not to segregate modes in the plan, but to build from the comments received and information gathered toward a multimodal strategy for the Regional Transportation Plan. The report also identifies the timeframe within which the issue or improvement becomes critical to the long-term viability of the transportation system. In some cases, the report touches on issues not readily discernible from present data or trends, but which manifest themselves only at higher (later) levels of development. The accompanying maps help to further clarify the regional context of the challenges in the area.

## 6.4 Highway Issues

The primary emphasis in the development of the Northwest Valley transportation system has been the highway network. The area is

served by a partial grid system that connects the major activity centers with a hierarchy of roadways ranging from local streets in neighborhoods to limited access freeways for interregional travel. The exceptions to the grid layout are Grand Avenue, which is diagonal, and discontinuities in the grid itself, particularly in the Sun Cities' area and north and west of Loop 101.

A major challenge is the discontinuity and the irregularity of portions of the arterial grid. Section line roadways are often interrupted by major developments or other installations that have been in place since long before the growth of the past 20 or so years (e.g., Luke AFB, Sun City, riverbeds). The current process of requiring improvements as part of individual development approvals has led to uneven roadway widths adjacent to those developments that are not necessarily based on projections of the actual need for capacity.

The questions therefore raised are: 1) how to overcome or bypass discontinuities to benefit and not negatively impact adjacent neighborhoods, businesses or institutions; and 2) how to encourage a more uniform treatment across jurisdictional boundaries as well as from one development project to another.

Riverbeds also disrupt the arterial grid. Many river crossings become impassable during heavy flow periods, and in some locations, alternative crossings are not available or are so far away that they are not realistic options. This problem can be remedied by adding the necessary bridges, though there is a question about where they should go.

Luke AFB and, to some extent, major developments may require more creative solutions such as adding capacity to roadways that serve the perimeter of the base. Uniform policies for roadway widening when capacity is needed can help if they are applied similarly by all agencies. This raises issues of equity and the role the government should play in "smoothing" the effect of currently disjointed practices. For example, identifying and preserving opportunities for future roadways and alternative modes is recognized as a major issue in the areas that are now beginning to face development pressure.

A simple comparison of lanes miles to the changes in the total of population + employment over the years indicates that the highway system will lose ground steadily over time. In other words, demand on individual facilities can, on average, be expected to grow significantly. This is a simplified assessment of future conditions, but a conservative surrogate in that vehicle miles traveled (VMT) are growing faster than population + employment.

Where change manifests itself most visibly is in the need for high volume facilities such as freeways and parkways, which experience a projected 44% reduction by 2030. Conditions in the highway system overall deteriorate dramatically (over 30%) toward 2030 as growth significantly outpaces the planned changes in the roadway network. In fact, few new facilities are identified for the time after 2020 in any local plans. Because many of the facilities planned by local agencies may not be implemented by 2020, deterioration in roadway functionality can be expected to accelerate over time.

**Table 17: Ratio of Lane Miles to Population + Employment**

Facility Type	2000	2020	2030
Arterials/Collectors	2.32	2.15	1.65
Freeways/Parkways	0.71	0.52	0.40
<b>Total</b>	<b>3.03</b>	<b>2.67</b>	<b>2.05</b>

In all cases, there is a substantial cost associated with completing and enhancing the Northwest roadway network. That cost will increase as time passes. In general, because of mounting roadway congestion, highway capacity is viewed as the most pressing short-term need. As the area continues to grow, it will become more and more imperative to identify policies and funds that ensure reasonable service levels and quality of life. A major challenge will be to balance funding among all the key transportation categories to address both long and short-term needs as well as various modal options.

The highway issues are divided into two categories in the following paragraphs: 1) regional issues and; 2) local issues with regional implications.

#### **6.4.1 Regional Highway Issues**

##### Maintain, Protect and Enhance the Regional Arterial Street Grid

There is broad consensus in the Northwest Valley that the arterial grid is essential to the orderly future growth of the area. It is less clear how the obstacles to the completion or even the improvement of the grid can be overcome and to what extent each community can contribute to a solution. Topography, established communities, Luke Air Force Base, and some river crossings prevent a uniform treatment of the arterials in some areas. So, while there is interest in mitigating as many grid obstructions as possible, there is also interest in developing as much capacity

as possible on facilities that help circumvent the discontinuities.

Much of the growth in the Northwest Valley will occur in the areas north and west of Loop 303 and there is considerable effort invested in identifying additional opportunities for roadway capacity to accommodate it. The challenge will be to reestablish a kind of grid access in areas that are limited by topography and facing extensive development potential. In the absence of an adequate grid expansion, most trips will be on the regional freeway system and on limited surface arterials and streets, resulting in congestion and inefficient overall system usage.

##### Completion of a Loop Outside of Loop 101 (Loop 303)

Loop 303, located outside of Loop 101, is becoming a critical link in the system as development moves farther from the central areas. Though removed from the regional freeway program in 1994, Loop 303 has already been relied upon by development activities in the area. Cities and new developments have also begun to identify their objectives for the new facility and prepare for its construction with projects that would depend on Loop 303 for primary regional access.

One challenge will be the appropriate character of the roadway. While there appears to be support for a freeway facility from area communities and stakeholders, there is also a demand that the new roadway not negatively impact existing communities.

Those most concerned with community impacts favor a parkway with limits on truck traffic. Luke AFB has concerns related to the intrusion of associated land use changes and its possible impact on the base mission. Present efforts by ADOT (as well as the current facility owner, MCDOT, under an Intergovernmental Agreement with ADOT) to prepare design concept reports for various sections of Loop 303 are making provisions for a freeway. In this study, demand for the facility as a whole based on projected growth in the entire West Valley will be considered.

The southern connection to I-10 is reasonably well identified in the vicinity of Cotton Lane. The northern terminus at I-17 was set by the MAG Regional Council to be at or near Lone Mountain Road, which is the subject of present planning efforts. However, there is also interest from some communities to identify an additional northerly terminus at or near New River Road. This additional link could work in concert with other plans to expand the freeway system farther out to create a possible "Loop 505."

#### Arterial Connection(s) between Loop 101 and 303

The proximity of the Loop 303 alignment to Loop 101 in Peoria offers an opportunity to enhance east-west travel by adding a connection between the two roadways. While a freeway is unlikely to be acceptable given existing development in the area, a major arterial connection could help to better distribute traffic to and between the two roadways. This will be a point of discussion with the cities of Peoria and Glendale, as well as development efforts in the area. A north-south link would also have advantages, if it connected to a new or improved facility along New River north of Loop 303.

#### Grand Avenue Improvements

Grand Avenue and the Loop 303 are two of the major corridors relied upon for regional travel that might otherwise use the arterial grid. Improvements to Grand Avenue are partially provided in an extensive regional expansion program to build grade separations between I-17 and Loop 101. The segment between Loop 101 and Loop 303 is under study. Because of its location and the limitations imposed by roadway access to adjacent land uses and the railroad, Grand Avenue may need to be viewed as more than a roadway corridor. This will become particularly relevant if commuter rail, light rail or bus rapid transit prove feasible at a future date.

(**Note:** For more information on these improvements please review the latest Grand Avenue Northwest Study and the High Capacity Transit Study. System alternatives will be defined consistent with those studies' findings and current work underway in the next phase of the Grand Avenue MIS.)

#### Add and Improve River Crossings

A number of cities need additional river crossings to maintain reasonable levels of circulation in and around their communities and to provide an acceptable level of emergency response in and among the communities. While provision of river crossings is often precipitated by local needs, they are regionally critical in the completion of portions of the arterial grid. The cities of Youngtown, El Mirage and Peoria have identified new river crossings of the Agua Fria River at Olive Avenue and New River at Beardsley Road as significant to resolving current and anticipated congestion issues in their communities. Other roadways that will require crossings include new facilities such as Jomax, Deer Valley and others west of Loop 303.

### Eliminate or Improve Handling of Scalloped Streets Issue

Scalloped streets refer to a “saw tooth” effect along a street right-of-way that generally results from the way development funds roadway improvements. This leads to changing lane configurations along a street that create congestion points and potential safety concerns. The variable effect can also result from differing street classifications between two or more adjacent jurisdictions.

This issue calls for a policy resolution. It occurs when development projects happen “out of order,” meaning development midblock or away from an already widened section of the street precedes the development of land adjacent to the widened sections. In general, each city can adopt policies to address scalloped streets, but when the effect is compounded by cross-jurisdictional manifestations of the problem, a regional or sub-regional policy solution including funding options may prove more effective. The challenge is to find an approach that will preserve a community’s plans/objectives while ensuring a consistent treatment of the transportation system.

### Protect Rights-of-Way Needed for Future Roadways and Facilities

As development activity shifts outward from the urbanized areas, there is growing interest in building or at least protecting the rights-of-way of future facilities to accommodate such growth before the impact is felt.

Carefree Highway is a primary focus of this concern as development activity moves closer to its present alignment. Plans to protect its viewshed as well as its Sonoran Desert character are high on the list of preservation objectives. Growth in Buckeye and Surprise may strengthen the need to construct or improve the CANAMEX Corridor and

Wickenburg has long supported development of the CANAMEX as an option to relieve truck traffic through its downtown.

Grand Avenue is already facing encroachment that will limit opportunities for future improvements to the north of Bell Road. Right of way for new facilities desired by local/regional agencies and/or other stakeholders that would require preservation must be identified today, before the opportunity is lost.

### Add and Improve Freeway Interchanges at Key Locations

New or improved interchanges have been identified by cities at locations where economic activity has grown and begun to overload existing interchanges or impact adjacent streets. Locations identified as needing new interchanges include:

- Bethany Home Road
- Loop 303/Grand Avenue (future)
- I-10/Bullard
- I-10/CANAMEX Corridor
- I-17/Dove Valley Road (future)
- I-10/Johnson
- I-10/Loop 303
- I-10/Perryville Road
- I-10/Watson Road

Those that require improvements to upgrade the interchange capacity include:

- I-17/Happy Valley Road
- I-17/Carefree Highway
- I-10/Sun Valley Parkway
- I-10/Dysart Road
- Loop 101/Peoria Ave
- Loop 101/Grand Avenue
- HOV Ramps
  - I-10/59<sup>th</sup> Avenue
  - I-10/79<sup>th</sup> Avenue
  - I-17/Peoria Avenue
  - Loop 101/59<sup>th</sup> Avenue
  - Loop 101/Bell Road



- Loop 101/Maryland

Interchanges will also be needed on new facilities such as Loop 303.

#### Widening of Existing Freeways

Based on ADOT's assessment of future traffic volumes as forecast by MAG, all freeways in the Northwest Valley will require substantial expansion to accommodate the traffic projected in the area. I-10 has been shown to need five general-purpose lanes plus at least one HOV lane in each direction as far west as Sun Valley Parkway by 2025. Likewise, I-17 will need five general purpose lanes and an HOV lane between Loop 101 and New River by the same time. While widening Loop 101 is not specifically mentioned, growing traffic volumes will necessitate an additional general purpose lane and HOV lanes to address demands in the corridor.

Widening may be problematic on freeways such as I-17 between I-10 and Dunlap given the extensive development already in place within the corridor. How the need will be addressed requires substantial further refinement over the coming years.

### **6.4.2 Regionally Significant Local Highway Issues**

A number of projects originate from local needs, but have wide-ranging effects on the region because they pertain to regional facilities or address impacts of regional traffic through local areas. This section identifies those roadways that are of specific interest to individual cities, but which have implications for a much broader sector in the transportation plan of the future.

#### Remove Through Traffic from Wickenburg Downtown

The Town of Wickenburg has seen a rapid increase in heavy commercial traffic through

its historic downtown as demand for goods movement and intercity travel to metropolitan areas to the north (e.g., Las Vegas, NV) has grown. The town has long studied the best way to offer an alternative to the current US 60/US 93 route. The latest plans identify a bypass south of the town connecting US 60 and US 93 to the west of the Downtown. Funding for the project has not yet been identified and various options are under study. The CANAMEX Corridor, a regional project that is also not funded, could offer a solution if funding can be made available in the near term.

#### Development of Northern Avenue Superstreet

The City of Glendale electorate recently approved the imposition of a local city sales tax to improve transportation throughout the city. Among the projects identified was the expansion of Northern Avenue to a "superstreet" from Grand Avenue to Loop 303 as a means to at least partially mitigate east-west mobility needs in the Northwest Valley. The definition of a superstreet is not yet fully developed, but it is likely to include widened intersections, extensive use of ITS, some access restrictions and possible grade separations. This project has implications beyond Glendale. Peoria and El Mirage have frontages along Northern Avenue that need to be incorporated into the plan for the facility. Luke AFB, at the west end of the project, has voiced concern about the roadway's possible effect on operations and has asked it be at least partially rerouted along an alignment farther from the end of the main runway, perhaps to Olive Avenue.

#### Sun Valley Parkway/Bell Road Improvements

Heavy anticipated growth in Buckeye and Surprise is expected to strain Bell Road's capacity because there are few east-west links in the area. In fact, only three roadways other than Bell Road access Surprise today.

In addition to improvements to Bell Road itself, there is interest in making another connection from Sun Valley Parkway to Grand Avenue north of Surprise. A specific location has not been identified, but the additional link could draw some traffic away from Bell Road if land use decisions to support such a flow of traffic are made concurrently.

Sun Valley Parkway has been identified for possible extension northward to Grand Avenue. Such an extension could help divert vehicles from Bell Road, but the benefit of that improvement will need to be measured against the results of the alternatives modeling.

#### Connection of Olive Avenue Across Agua Fria River

Olive Avenue is a low water crossing at the Agua Fria River. During high runoff periods, the crossing becomes impassable and limits access for thousands of drivers who are forced to find alternative routes. Both Youngtown and El Mirage view Olive Avenue as a critical link in their future. As a result, they recognized that they will need an improved crossing of the Agua Fria River. While this connection will serve proposed growth in the two communities, it will also be a major addition to the arterial grid in the area as the facility would be able to carry more traffic and relieve adjacent arterials.

#### Beardsley Access to Loop 101 at New River

The cities of Peoria and Glendale have been evaluating how a connection to the southbound direction of Loop 101 could reduce congestion at the interchanges of the freeway and 75<sup>th</sup> Avenue and Union Hills. The project would also offer an additional river crossing in addition to the additional capacity. This connection could also serve as part of a link needed in this area between Loops 101 and 303.

#### Hassayampa River Crossings

The Town of Buckeye has indicated that proposed development in their community will extend westward of Sun Valley Parkway. A connection between the CANAMEX Corridor and Sun Valley Parkway would afford motorists substantially better accessibility to areas west than simply relying on I-10.

#### Indian School Road at Agua Fria

A new bridge is proposed on Indian School Road to improve capacity across the Agua Fria in the area immediately north of I-10. Widening of the McDowell Road bridge is also recommended.

#### Major Arterial Intersection Improvements

The City of Glendale included a long list of intersection improvements among the top priorities for transportation in the city. Similar views are held among other communities as a way to expand capacity without a major widening of the entire corridor. Though these are local improvements, an orchestrated regional plan to address street intersections in a logical and measured fashion could help to improve traffic flow in some areas.

#### Regionwide Signal Coordination

Recognizing the interconnectedness of Northwest Valley travel, cities and towns have indicated a need to improve the management of traffic through the coordination of traffic signals. This requires installation of significant infrastructure to be most effective and only two cities have those systems in place or are prepared to implement them in the near term. A number of arterials in the Northwest Valley are part of the MAG ITS Strategic Plan implementation program and could be the basis for joint funding applications for federal Congestion Mitigation and Air Quality (CMAQ) funds that could help speed system development. There is also the potential of temporary resource sharing arrangements

that could move the area toward the long-term objective. This is still a challenging issue, but one that can yield some relatively quick benefits if neighboring cities view the need and the solution from a common regional perspective.

## 6.5 Public Transportation Issues

Public transportation is supported in concept in the Northwest Valley but there are concerns regarding funding availability. Communities that have obtained public support for local transit funding (i.e., Phoenix and Glendale) have much better developed programs in place and a better long-term understanding of their public transportation needs. Others are just beginning to incorporate transit and alternative modes into their city programs.

The most common challenge identified among the Northwest communities regarding transit development is funding. Some cities are very small and do not have the critical mass to support a local tax or other revenue source. Others do not yet have an urgent need for alternatives to the automobile. On the other hand, even the smaller communities outside the urban core have begun to recognize the limitations of relying on the highway system alone to handle travel demand in the future. With the exception of Phoenix and Glendale and a few specific route issues, transit is currently viewed as a mid-term priority in the Northwest Valley.

Phoenix has a well-developed transit program with an extensive bus system and a light rail transit line under development. Glendale has just begun to improve its own services with the recently approved sales tax and will look at light rail in the future. El Mirage, Peoria, and Surprise have little transit available, but are beginning to identify their own opportunities to expand service in dial-a-ride

and support further fixed route service into their communities. Wickenburg has indicated interest in a local circulator type of service as well as the need for better line haul connections such as commuter rail to the Phoenix area. These plans are generally modest, but show indications of a shift in perspective toward the role of transit even before the need arises. This will help improve long term transportation planning and allow better coordination of public transportation plans with growth and development.

### 6.5.1 Regional Public Transportation Issues

#### Regional Transit Funding

The main concern in the Northwest Valley about transit service is funding. Except for Phoenix and, more recently, Glendale, there is no locally dedicated source of funding for transit in the area. All other communities rely on limited funds from the state to pay for dial-a-ride services within their own limits. On the other hand, there is interest from most cities to provide for transit as they build out. The key is to identify specific projects that will aid movement in their areas given the type of land use and commercial futures they are likely to experience. As with roadways, a challenge will be to determine how to distribute any future funding to support a balance in transit versus any other elements of the ultimate transportation plan.

#### Extension of Transit Services into Western Communities

Phoenix and Glendale have specific plans for how they will expand transit services in the next 15 to 20 years or so. They also have the funding with which to make much of it happen. Other communities are in the process of identifying how transit will serve their needs. Peoria and Surprise, for example, have adopted plans to gradually improve upon the

limited paratransit service currently available. Wickenburg believes there is a need for a shuttle to downtown as development in the outer portions of the town occurs. Should the prospect of commuter rail or light rail prove viable, preliminary indications are that communities along the Burlington Northern Santa Fe (BNSF) railroad line will likely support the effort if funding is available.

It would be reasonable to consider that, even if transit service is not extended westward in the near future, an effort be made to shape a regional program to provide for transit needs, much the way right-of-way can be protected for highways. This could be in the form of right-of-way reservation for transit improvements or expanded standards for roadways that can be expected to carry transit services in the future.

### **6.5.2 Long Term Plan for Light Rail or Commuter Rail Service**

The study of high capacity transit is currently underway to identify where such service might offer the potential of improved mobility in the region. Commuter rail is of interest in many of the communities that abut the BNSF Railroad right-of-way because the corridor is already defined and offers access to many major destinations. Even outlying communities such as Wickenburg view commuter rail as an opportunity for their residents to access downtown destinations in the more urbanized areas of the Valley. BNSF has also shown some willingness to discuss the prospects of passenger service as they consider ways to make their own operations more efficient through possible relocations of yards and services.

Without cooperation from BNSF, the likelihood of using the existing corridor for high capacity transit service on or adjacent to the railroad right-of-way would be significantly impaired. A

key consideration is the volume of freight traffic that currently uses or could be expected to use the tracks if it were to be shared with passenger traffic. Diverting regional and through freight traffic to another route would reduce the demand for the Grand Avenue line and open the opportunity for cooperatively using the track.

### **Bus Rapid Transit/HOV Lanes on Freeways**

Many of the cities have mentioned the need to build or extend HOV lanes for ridesharing or transit immediately to accommodate growth in traffic on Loop 101, I-10, and I-17. In the latter two cases, HOV lanes have only recently been provided, yet there is a concern that they do not extend far enough into the growing areas of the region. ADOT staff expectations are that HOV lanes will need to extend as far as New River on I-17 and Sun Valley Parkway on I-10 within the next ten years.

HOV lanes provide a good foundation for bus rapid transit (BRT) options that could offer attractive regional service within a relatively short period of time. While BRT is not yet a household concept, it is likely to gain favor over time. In the Valley of the Sun, BRT is currently only under development in a limited way in Phoenix. Other communities have studied BRT possibilities and begun to take a serious interest in the reduced cost of BRT technology compared to generally more expensive rail options. Currently, the main issue with BRT is the varied number of interpretations of its definition. Low-end versions are purported to carry high numbers of passengers in high-density locations where the transit ridership is already well established. High-end systems approximate many of the characteristics of light rail transit and help to generate ridership by attracting people to the system. In the Northwest Valley, a critical decision would be to decide

where BRT makes sense and where it can be readily accommodated if built into existing or proposed bus routes or given a dedicated space within a roadway corridor.

### **6.5.3 Regionally Significant Local Public Transportation Issues**

#### Subregional Loop Service in Surprise and Neighboring Cities

The City of Surprise has determined that a small transit service connecting key destinations in the Surprise, Peoria, Glendale, Youngtown, and El Mirage area could be the beginning of an effective subregional service. Such a service could also become a building block for more extensive regional service in the area. The proposed “Figure 8” route would require moderate funding from all benefiting communities. Most have shown a level of interest, but are reluctant to join the plan citing funding constraints.

#### Extension of Existing Bus Services

A number of communities hope to be able to benefit from extensions of current Valley Metro service if funding becomes available. This is one of the simplest ways to improve transit in the growing areas of the Valley. For example, El Mirage would like to receive service from an extension of existing Route 106 and Peoria and Surprise identify a number of extended routes in their transit plans. This opportunity will hinge on the availability of a funding source.

#### Extension of Light Rail Line Through Glendale

The City of Glendale will build an extension of light rail off the Central Phoenix/East Valley system currently under design. Funding is expected to be available for the project from the recently approved local sales tax increase, but there is still a series of steps required before it can proceed. This is a local effort that could portend expansion westward if it

proves successful. Other communities (e.g., Peoria and Surprise) are considering the possibilities of light rail, so it should be evaluated as part of a regional long-range transit plan.

### **6.5.4 Bicycle/Pedestrian Issues**

Most participants in the process mentioned bicycle and pedestrian issues in their areas. On the other hand, those issues did not rise to a level of criticality compared to highways and transit. Most non-motorized modes projects tend to be viewed in a recreational context and not as a solution to transportation problems. Bicycles generally do not provide mobility the way a car does. In addition to the climate, the character of development with generally long travel distances discourages reliance on bicycles as a primary mode. These issues are described as something that can be provided as more pressing needs are addressed, such as highways.

### **6.5.5 Regional Bicycle/Pedestrian Issues**

#### Take Advantage of Recreation Corridors

While they may be developed as part of a recreational plan, bicycle and pedestrian paths can serve the community for limited non-recreational tripmaking. Even in a riverbed, if a corridor affords access to amenities, schools, and retail, people have the choice to use something other than the automobile to satisfy their travel needs. The West Valley Rivers Master Plan is a good example of how a coordinated plan can support alternative modes of travel as part of a regional recreational / transportation element. The key to their contribution is in their implementation. Once they are in place, they can serve multiple uses. It also takes a number of communities to agree on the treatment within their areas to raise and maintain support for the project.

While the recreation corridors offer reasonably good opportunities to complete a regional system of bicycle and pedestrian linkages, they do not directly access many of the area's key destinations. Because transportation in the Northwest Valley has been built upon highways, it is reasonable to link future plans for bicycle and pedestrian systems to street plans. The real challenge will be the manner in which the plan is designed and standards applied to satisfy concerns about safety and accessibility. The local preference for secondary streets may not afford the comprehensive plan that is preferred by bicycle users and expected as part of the Regional Transportation Plan.

### **6.5.6 Regionally Significant Local Bicycle/Pedestrian Issues**

#### Use Secondary Streets, Not Major Streets

The consultation process showed that the view of the officials interviewed is that for most casual bicycle riders, less congested, slower, secondary streets are preferred to the mile and half-mile arterials. Though most Circulation Elements show bicycle lanes on both arterials and collectors, there is concern about mixing bicycles with higher speed automotive traffic though there is also recognition that traffic laws cannot prevent a bicyclist from using any of the public street system for travel.

The nature of the issue of integrating a system of bicycle paths and pedestrian amenities across jurisdictional lines rises as discontinuities multiply. The limited number of river crossings, the discontinuity of the arterial grid, let alone non-arterial streets, all challenge a regional bike lane or bike route plan to aid commuters. It will be important to ensure all parties agree on the same linkages as part of the ultimate buildout of the bicycle and pedestrian systems. In the absence of a

common understanding of how to implement the plan, it will remain a recreational amenity.

## **6.6 Goods Movement Issues**

Much of the truck traffic in the Northwest Valley uses I-10 to access the many distribution centers in Avondale and Tolleson. In general, they do not simply pass through the area, but interact with local freight operators before continuing through.

The consultation process revealed an interest in effective, efficient corridors for trucks and goods, mainly the freeway system, but a rejection of corridors that would interfere with other activities. The primary concern about goods movement is the impact truck traffic has on adjacent development. Most believe that freight transportation in the future would be provided for by CANAMEX and the freeway system, as well as the BNSF mainline on Grand Avenue or in a future location farther west. How or if trucks would use certain arterial corridors is not yet fully understood by each community and little provision has been made so far to accommodate heavy vehicles in new growth areas. Regarding timing, the main factor in the priority of goods movement improvements is the effect truck or train operations have or are expected to have on local residents and businesses.

Recent survey information about truck traffic and interviews with truck operators and distribution centers in the area of the southern half of the Loop 303 corridor indicates a high percentage of trucks destined to places outside the Valley of the Sun. Given the concerns about the impact of trucks in residential or sensitive areas, a freeway corridor is most likely the best option to handle such traffic. The issue will be to identify the best location for such trips and to determine if

any of the planned facilities can serve that purpose.

### **6.6.1 CANAMEX**

The MAG Regional Council designated the Wickenburg Road/Vulture Mine Road Corridor as the CANAMEX Corridor to carry international traffic between Canada and Mexico through the Phoenix metro area. While the main objective was to identify a location to handle increased NAFTA truck traffic away from developed areas, the nature of the usage may change before it is built. As Buckeye and surrounding areas begin to grow north of the I-10 Corridor, the need for additional north-south routes will become critical. At the same time, the bypass in Wickenburg, need for another northerly connection between Sun Valley Parkway and Grand Avenue, and rapid growth in Peoria, Surprise and Phoenix along SR 74 could all make it imperative for the RTP to identify a kind of "Loop 505" major arterial or parkway at least partly along the CANAMEX alignment to protect future options. Implementation of a highway or CANAMEX will be tied to the availability of funding for the designated international truck route.

### **6.6.2 Local Truck Routes**

A local concern is that there is no identified system of truck routes in the area to guide drivers. At present, many mining and distribution operations simply use the most direct path available from their pick up point to their destination. This is to a degree provided for in state law. Some interest exists to develop a system of corridors for trucks that would avoid residential areas although there is also a recognition that it would be very difficult to enforce.

### **6.6.3 BNSF Railroad on Grand Avenue**

The BNSF has longstanding customers along Grand Avenue and they plan to continue to serve them into the future. At the same time, they are openly discussing the possibility of moving the main switching operation to a more westerly site. That would free track time along Grand Avenue for transit or other purposes, but more importantly, it could help to expedite freight operations by removing some of them from the congested portions of the urbanized area. In a new location, safeguards could be built in to protect against the infringement upon the new tracks by development. However, how that would be guaranteed is not clear as yet.

## **6.7 Airport Access Issues**

This study does not address aviation issues, but access to key aviation facilities is mentioned as one issue to be kept in mind in designing the future transportation system. Aviation is addressed in the MAG Regional Aviation System Plan.

### **6.7.1 Luke Air Force Base**

A major factor driving decision-making in the Northwest Valley is how the base and its mission can be protected from encroachment of new development or major transportation corridors. This is an immediate issue and one that has drawn significant attention over the past years. Luke AFB is a major contributor to the local economy and will not be easily relocated. This raises the question of roadway alignments that will be compatible with the base. In particular, Northern Avenue as proposed may be the subject of more discussion in the Luke AFB area. Loop 303 passes near the west side of the base, but there is no plan within the base to reorient any of their activities toward the new roadway. That could change over time, so flexibility

should be built into the plan for local access near the base.

### **6.7.2 Glendale Municipal Airport**

Glendale Airport is a reliever general aviation facility with limited charter passenger service. It expects significant growth over the years as various business activities near the airport begin to rely more heavily on its facilities. Access to the airport is off Glendale Avenue, less than a mile west of Loop 101. Glendale Airport is in the path of Bethany Home Road, 111<sup>th</sup> and 117<sup>th</sup> Avenues. As the airport grows (it has plans to extend the runway to accommodate larger jet aircraft) access will need to be designed to handle the potential of significantly higher ground traffic volumes to its facilities.

### **6.7.3 Wickenburg Airport**

Wickenburg Airport is small, but the Town has ambitious visions for its growth. It is located

on US 89, a short distance west of town. Though not an immediate issue, its very location outside heavily traveled airspace in the Valley makes Wickenburg Airport potentially viable as a regional reliever for activity associated with new growth in the Northwest Valley. Access from main regional roadways would be significantly improved with a western Wickenburg Bypass connecting SR 60 with US 93 and a possible connection along the CANAMEX Corridor with I-10 in Buckeye. As these improvements are developed, consideration should be given to the opportunities for the use of Wickenburg Airport as a regional facility. Improvements are identified in the Regional Airport Systems Plan, but they do not cover this type of operational expansion.